

REMARKS

Claims 1-15 are present, with all claims having been amended by the current response.

Claims 1-15 are rejected.

Rejections Under 35 USC §103(a)

As a preliminary matter, with respect to the 35 USC section 103 rejections, Applicant respectfully objects to the form of the Examiner's rejections. Instead of identifying the relevant portions of the references that allegedly anticipate or render Applicant's claimed invention obvious, and instead of providing reasoning or a basis for the rejections, the Examiner has merely identified individual elements in two applied references and uses a portion of the background of the present application deemed an [alleged] admission of prior art by the Applicant, and made unfounded, general rejections under Section 103 based on all the references, and the deemed prior art each individually. Further, the Section 103 rejections appear to provide no disclosure, suggestion or teaching as to how the references may be modified and, much less, any motivation for doing so. Applicant respectfully asserts that the form of the Examiner's rejections is improper.

Prior to addressing the above, Applicant respectfully submits that the present disclosure is indeed novel and not obvious. The [alleged] admission of prior art in the specification is specifically addressed in the specification as follows:

[0002] For example, in a bone conduction speaker 31 provided in a cell phone using a conventional type of bone conduction speaker, generally speaking a cushioning material 34 is interposed between the bone conduction

speaker 32 and a housing 32 within a concave portion 33 of the housing 32 so as to keep the bone conduction speaker in effective isolation, wherein the concave portion 33 is provided in a suitable area of the housing 32 and has its depth extended in a direction of the thickness of the housing 32. The cushioning material 34 is provided in either a bottom surface of the concave portion 33 only (Fig. 10) or an area extending from such bottom surface to a side surface of the concave portion 33.

[0003] In the case of the cell phone using the above-mentioned conventional type of bone conduction speaker, such cell phone is convenient since the cell phone is capable of clearly catching a received sound even in a high-noise environment. On the other hand, the cell phone of this type is disadvantageous in that the cell phone of this type is larger in thickness than a cell phone using a conventional sound-pressure speaker since the cell phone of this type is provided with the concave portion for receiving therein the bone conduction speaker as described above and the cushioning material must be disposed on the bottom surface of the concave portion. The above disadvantage is remarkable in a foldable type of cell phone since an increase in thickness of the cell phone causes discomfort to its user.

[0004] In the above-mentioned construction, **in order to reduce the cell phone in thickness**, the cushioning material used in the cell phone is small in thickness. However, such thin-thickness cushioning material is poor in a cushioning effect. **This makes it impossible to keep the bone conduction**

speaker in effective isolation with respect to the housing. As a result, echo back increases in volume. Due to this, in order to prevent such large echo back from being produced, **it is impossible for the cell phone using the conventional bone conduction speaker to issue an output large in volume.** This is a problem inherent in the cell phone **using the conventional bone conduction speaker.**

(Emphasis added)

As should be clear from the above, the present disclosure is directed toward presenting a solution to the increase in the thickness of the housing when a bone conduction device is conventionally incorporated into a cell phone. As clearly stated in the specification at paragraph [0007] and in paragraph [0014], Applicants disclose their solution to the thickness issue in the specification as follows:

[0007] The present invention was made in order to solve the problems inherent in the portable telephone or cell phone using the above-mentioned conventional bone conduction device. Consequently, it is an object of the present invention to provide a portable telephone or cell phone using a bone conduction device capable of being used even in a high-noise environment without causing any inconvenience in use, wherein the cell phone of the present invention **is free from any increase in thickness of a housing of its main body and capable of issuing an output sufficiently large in volume.**

[0014] Since the bone conduction device is supported in the

concave portion of the housing of the main body of the cell phone or in the through-hole portion of the housing only through the cushioning material disposed around the bone conduction device, it is possible to keep the bone conduction device in effective isolation with respect to the housing, which makes it possible to eliminate the cushioning material having been heretofore disposed on the bottom surface of the concave portion. **As a result, it becomes possible to reduce the housing in thickness, which leads to a considerable reduction in thickness of the cell phone as a whole.** (Emphasis added)

Rejections under 35 USC 103 (a)

In the present official action, the Examiner rejected Claims 1, 4-9 10 and 13 under 35 USC 103(a) as being unpatentable over Lee et al. (WO 02/19759 A1) herein referred to as Lee '759, in view of Lee et al. (W/O 2004/032566A1) herein referred to as Lee '566, and further in view of Applicant's [alleged] admission to prior art as follows:

Claims 1, 4-9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (WO 02/19759 A1)** herein referred to as Lee '759, in view of **Lee et al. (WO 2004/032566 A1)** herein referred to as Lee '566, and further in view of Applicant's [alleged] admission to prior art.

Consider **claim 1**, Lee '759 teach a portable telephone using a bone conduction device (read as bone-conductor vibrator 50) (page 1 lines 24-30, and page 3 lines 27-31, and page 6 lines 28-30) comprising:

a bone conduction device having an outer surface edge (read as bottom end of circular base plate 52 placed at the bottom end of the bone-conductor vibrator 50) (Figure 3, and page 6 lines 28-32);

a cushioning material (read as cushion member 60a and 60b) disposed on said outer surface edge of said bone conduction device (read as cushion member bonded to the lower surface of the base plate 52) (Figure 3, and page 9 lines 3-13);

a gap formed between said bone conduction device and housing (read as the space between the circular base plate 52 and the housing of the telephone occupied by cushion member 60b) (Figure 4, and page 9 lines 3-13); and a vibration surface of said bone conduction device (read as cushion member 60a bonded to the upper surface of the diaphragm 56b of the armature 56) positioned to be slightly extended outward from said housing by said cushioning material (read as cushion member 60a bonded to the upper surface of the diaphragm 56b of the armature 56 wherein the cushion member contacts a human body directly and controls the vibrating characteristics of the vibrator 50 wherein the output of the vibrator 50 varies according to the thickness of the cushion members 60a and 60b) (page 9 lines 3-13).

However, Lee '759 fail to teach a housing having a concave portion with a bottom portion and an inner edge surface, which is larger in diameter than said bone conduction device, and wherein said housing forms a main body of the telephone; and the cushioning material disposed on said inner edge surface of said concave portion of said housing.

In the related art, Lee '566 teach a housing having a concave portion (read as the opening of the mobile phone that contains the bone-conductor speaker 80 shown in Figure 4) with a bottom portion and an inner edge surface (read as the surface where the bone-conductor speaker 80 comes in contact with the mobile phone shown in Figure 4), which is larger in diameter than said bone conduction device (read as the opening of the mobile phone that has a diameter that is large enough to contain the bone-conductor speaker 80 which is provided at the inner side of the upper portion of the cover of the mobile phone shown in Figure 4), and wherein said housing forms a main body of the telephone (read as mobile phone has a main body portion 84 and a cover 86) (Figure 4, and page 18 lines 5-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lee '566 into the teachings of Lee '759 for the purpose of allowing the user of a mobile phone to hear the sound by the vibrational hearing function and the acoustic hearing function simultaneously.

However, Lee'759 as modified by Lee '566 fail to teach the cushion material disposed between said inner edge surface of said concave portion of said housing.

Applicant's [alleged] admission of prior art teach the cushion material disposed between said inner edge surface of said concave portion of said housing (read as cushioning material 34 is provided in an area extending from such bottom surface to a side surface of the concave portion 33) (page 1 paragraph [0002]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Applicant's [alleged] admission of prior art into the teachings of Lee' 759 as modified by Lee '566 for the purpose of keeping the bone conduction speaker in effective isolation.

Consider **claim 4, as applied to claim 1**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art further teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions (read as mobile phone has a main body portion 84 and a cover 86) foldable relative to each other (Lee '566 - Figure 4, and page 18 lines 5-18); and

a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 4 and page 18 lines 5-18).

Consider **claim 5, as applied to claim 1**, Lee `759 as modified by Lee'566 and further type provided with a housing constructed of two housing portions (read as mobile phone has a main body portion 84 and a cover 86) foldable relative to each other (Lee '566 - Figure 4, and page 18 lines 5-18); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 4 and page 18 lines 5-18).

However, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art fail to specifically teach wherein the

portable telephone is a rotatable type provided with a housing constructed of two housing portions rotatable relative to each other; and a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions when the two housing portions are rotated closed.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Lee `566 and further in view of Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a rotatable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a rotatable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Consider **claim 6, as applied to claim 1**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions (read as mobile phone has a main body portion 84 and a cover 86) foldable relative to each other (Lee '566 - Figure 4, and page 18 lines 5-18); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions

(Figure 4 and page 18 lines 5-18).

However, Lee '759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art fail to teach wherein the portable telephone is a slidable type provided with a housing constructed of two housing portions slidable relative to each other when the telephone is in a closed position; and when in the closed position of the telephone, a vibration surface of said bone conduction device abuts an inner surface of one of said housing portions, which is disposed oppositely from said other housing portions, wherein said other housing portions carries said bone conduction device of said housing.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee '759 as modified by Lee '566 and further in view of Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a slidable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a slidable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference. Consider **claim 7**, Lee '759 teach a portable telephone using a bone conduction device (read as bone-conductor vibrator 50) (page 1 lines 24-30, and page 3 lines 27-31, and page 6

liens 28-30) comprising:

a bone conduction device (read as bone-conductor vibrator 50) (page 6 lines 28-30);

a device holder (read as frame 51, the base plate 52 and armature 56) made of a resilient material wherein said device holder is constructed of a container portion (read as frame 51), wherein said container portion carries said bone conduction device therein (page 6 lines 28-32, and page 7 lines 7-12); and

a gap formed between said bone conduction device and housing (read as the space between the circular base plate 52 and the housing of the telephone occupied by cushion member 60b) (Figure 4, and page 9 lines 3-13).

However, Lee `759 teach a housing having a device installation opening; a fixing portion and wherein said fixing portion is fixedly mounted on an inner surface of said device installation opening of said housing of the telephone and said bone conduction device extends from said housing.

In the related art, Lee `566 teach a housing having a device installation opening (read as mobile phone has a main body portion 84 and a cover 86, the bone conduction speaker 80 is provided at the inner side of the upper end portion of the cover 86 of the mobile phone) and said bone conduction device extends from said housing (Figure 4, and page 18 lines 5-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lee '566 into the teachings of Lee `759 for the purpose of allowing the user of a mobile phone to

hear the sound by the vibrational hearing function and the acoustic hearing function simultaneously.

Lee `759 as modified by Lee `566 fail to teach a fixing portion and wherein said fixing portion is fixed mount on an inner surface of said device installation opening of said housing.

Applicant's [alleged] admission to prior art shown in Figure 11 shows a fixing portion (read as portion of housing that the screw is fixed to shown in Figure 11) wherein said fixing portion is fixed mounted on an inner surface of said device installation opening of said housing (shown in Figure 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Applicant's [alleged] admission of prior art into the teachings of Lee' 759 as modified by Lee '566 for the purpose of keeping the bone conduction speaker in effective isolation.

Consider **claim 8, as applied to claim 7**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art further teach wherein an abutting plate is fixedly mounted on said bone conduction device to cover a front surface side of said container portion (read as cushion member 60a bonded to the upper surface of the diaphragm 56b of the armature 56), wherein said plate is so arranged as to slightly extend outward from said housing (read as the output of the vibrator 50 varies according to the thicknesses of the cushion members 60a and 60b the thickness resulting in the plate extending outward from housing) (Lee `759 - page 9 lines 3-13).

Consider **claim 9, as applied to claim 8**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art further teach wherein a circular rib for receiving therein a peripheral edge portion of a rear surface of said abutting plate is provided in a front surface side of said container portion (read as armature 56, including a rim portion 56a and a circular-shaped diaphragm 56b which is integrally formed with the rim portion 56a while being stepped down along the inner periphery of the rim portion 56a, is coupled to the opened top end of the frame 51) (Lee `759 - page 7 lines 17-21).

Consider **claim 10, as applied to claim 1**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions (read as mobile phone has a main body portion 84 and a cover 86) foldable relative to each other (Lee '566 - Figure 4, and page 18 lines 5-18); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 4 and page 18 lines 5-18).

However, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art teach fail to teach wherein the portable telephone is a rotatable type provided with a housing constructed of two housing portions rotatable relative to each other in a closed position the telephone said vibration surface of said bone conduction device abuts one of said two housing portions; an inner surface of one of said two housing portions oppositely disposed

from the other one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Lee `566 and further in view of Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a rotatable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a rotatable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Consider **claim 13, as applied to claim 1**, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art further teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions (read as mobile phone has a main body portion 84 and a cover 86) foldable relative to each other (Lee '566 - Figure 4, and page 18 lines 5-18); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 4 and page 18 lines 5-18).

However, Lee `759 as modified by Lee'566 and further modified by Applicant's [alleged] admission of prior art fail to teach wherein the portable

telephone is a slidable type provided with a housing constructed of two housing portions slidable relative to each other; and a closed position of the telephone, wherein said vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Lee `566 and further in view of Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a slidable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a slidable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Amendment of Independent Claims 1 and 7

Regardless of the above, and solely to expedite prosecution without intending to alter the scope of the claims, Applicants have herein independent amended claims 1 and 7 to make explicit that which was implicit. Namely, independent claims 1 and 7 have been amended to recite that the bone conduction device is “...supported in the concave portion of the housing only”

by the cushioning material disposed around the bone conduction device” and “thereby reducing the thickness of the portable telephone.” A gap is formed between said bone conduction device and said bottom portion of said concave portion of said housing **such that no cushioning material is disposed in said gap, thereby reducing the thickness of the portable telephone.** (Emphasis added) Support for these amendments can be found in paragraphs [0007] and [0014] of the specification and are reproduced on page 7 of this paper.

Thus, independent claims 1 and 7 have been amended to more clearly distinguish over the Examiner’s asserted combination in that the relied upon references fail to disclose, suggest or teach a bone conductive device supported in the housing only by the cushioning material disposed around the bone conductive device thereby reducing the thickness of the portable telephone.

Applicant has now amended independent claim 1 to require, among other features, that **“no cushioning material** be disposed in the gap” in contact with the bottom surface of the concave portion as clearly required by the following sentence from the second paragraph of the specification relied upon by the Examiner “... The cushioning material 34 is provided in either a bottom surface of the concave portion only (Fig. 10) or an area extending from such bottom surface to a side surface of the concave portion 33.” With such amendments, Applicant respectfully submits that the independent claim 1 and all claims depending there from are allowable in any further rejection of the claims based upon these references is improper. (Emphasis added)

Furthermore, the structural design of the bone conduction vibrator in Lee ‘759 is in stark contradistinction with the limitations of the instant claims. For example, the cushion members in S/N: 10/568,336

Lee ‘759 “contact directly the human body, especially a head” (page 9, ln.9-13). Namely, the cushioning members are exposed. This disclosure suggests that the cushioning members in Lee ‘759 are not “operatively disposed *between said inner edge surface of said concave portion of said housing and said outer surface edge of said bone conduction device* such that said bone conductive device is supported in the concave portion of the housing **only by the cushioning material disposed around the bone conduction device.**” Therefore, one having ordinary skill in the art would simply not be motivated to combine the teachings of Lee ‘759 with any reference of record to yield the present claim limitations because there is no disclosure, suggestion or teaching in any reference of record concerning the requirement that the cushioning members be“...operatively disposed *between said inner edge surface of said concave portion of said housing and said outer surface edge of said bone conduction device* such that said bone conductive device is supported in the concave portion of the housing **only by the cushioning material disposed around the bone conduction device.**”

Concerning Applicant’s [alleged] admission, which serves as a substantial foundation for the Examiner’s rejection, Applicant respectfully disagrees with the conclusion drawn by the Examiner. Independent claim 1 reads, in relevant part, “a cushioning material operatively disposed between said inner edge surface of said concave portion of said housing **and** said outer surface edge of said bone conduction device.” (Emphasis added) Cushioning material “in an area extending from such bottom surface to a side surface of the concave portion” does not equate to “a cushioning material operatively disposed between said inner edge surface of said concave portion of said housing **and** said outer surface edge of said bone conduction device.” The [alleged] admission is silent regarding the location of the cushioning member being relevant to

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the outer surface edge of the bone conduction device. Hence, the statement regarding a cell phone using a conventional bone conduction speaker does not describe what the Examiner asserts that it describes; therefore, Applicant's [alleged] admission is not relevant to the instant rejection. Furthermore, the Examiner asserts that "[a]pplicant's [alleged] admission of prior art teach the cushion material disposed between said inner edge surface of said concave portion of said housing" (page 5). The use of the word 'between' commands that there be at least two locations referenced (e.g. x is located between point A and point B). The Examiner's assertion is silent regarding a second referenced location. Note that amended independent claim 1 includes two referenced locations (i.e. between inner edge of concave portion and the outer surface of the bone conduction device).

Conversely, it is the Examiner's [alleged] admission, that " Lee '759 as modified by Lee'566 fail to teach the cushion material disposed between said inner edge surface of said concave portion of said housing" (and said outer surface edge of said bone conduction device), which places the present claims in condition for allowance. The Examiner admits that without the Applicant's own [alleged] admission of prior art, the cited references fail to teach the novel and non-obvious features of the instant claim limitations. Because of the reasons stated *supra*, the Applicant's [alleged] admission is not relevant and can not be the basis for any rejection. Therefore, Applicant respectfully submits that amended independent claim 1 is non-obvious and thus patentable over Lee '759 in view of Lee '566 and an action acknowledging same is respectfully requested.

In the present official action, the Examiner rejected Claims 2-3, 11-12 and 14-15 under 35 USC 103(a) as being unpatentable over Lee et al. (WO 02/19759 A1) herein referred to as Lee S/N: 10/568,336

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`759 in view of Clark (U.S. Patent #6,134,336) and further in view of Applicant's [alleged] admission of prior art as follows:

Claims 2-3, 11-12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (WO 02/19759 A1)** herein referred to as Lee `759, in view of **Clark (U.S. Patent #6,134,336)** and further in view of Applicant's [alleged] admission of prior art.

Consider **claim 2**, Lee `759 teach a portable telephone using a bone conduction device (read as bone-conductor vibrator 50) (page 1 lines 24-30, and page 3 lines 27-31, and page 6 lines 28-30) comprising:

a bone conduction device having an outer surface edge (read as bottom end of circular base plate 52 placed at the bottom end of the bone-conductor vibrator 50) (Figure 3, and page 6 lines 28-32);

a cushioning material (read as cushion member 60a and 60b) disposed on said outer surface edge of said bone conduction device (read as cushion member bonded to the lower surface of the base plate 52) (Figure 3, and page 9 lines 3-13); and

a vibration surface of said bone conduction device (read as cushion member 60a bonded to the upper surface of the diaphragm 56b of the armature 56) extended outward from said housing (read as cushion member 60a bonded to the upper surface of the diaphragm 56b of the armature 56 wherein the cushion member contacts a human body directly and controls the vibrating characteristics

of the vibrator 50 wherein the output of the vibrator 50 varies according to the thickness of the cushion members 60a and 60b) (page 9 lines 3-13).

However, Lee '759 fail to teach a housing having a surface and a through-hole portion, wherein said through-hole portion is configured to be larger than said bone conduction device, wherein said housing forms a main body of the telephone; and the cushioning material is disposed between an inner surface of said through-hole portion.

In the related art, Clark teach a housing having a surface (read as upper housing 102 of radiotelephone 100 is formed at least in part by a housing portion 116 and a housing portion 118 and a front surface 112 of upper housing 102 has an ear placement region 114) (column 4 lines 18-21) and a through-hole portion (read as plurality of openings 120), wherein said through-hole portion is configured to be larger than said bone conduction device (read as plurality of openings 120 is formed on housing portion 116 and positioned within ear placement region 114 generally circularly positioned outside of and around the plurality of openings 124. Integrated speaker assembly 400 of portable radiotelephone includes housing portions 116 and 118) (column 4 lines 31-37, and column 4 lines 56-65), wherein said housing forms a main body of the telephone (read as portable radiotelephone 100 has an upper housing 102 and a lower housing 104 rotatably connected via a hinge 105 forming a handheld housing for a portable radiotelephone 100) (column 4 lines 5-8).

Therefore, it would have been obvious to one of ordinary skill in the art a

the time the invention was made to incorporate the teachings of Clark into the teachings of Lee `759 for the purpose of providing a combination of speaker, enclosure and preconditioning electrical circuitry that provides an acceptable audio quality.

Lee `759 as modified by Clark fail to teach the cushioning material disposed between an inner surface of said through-hole portion.

Applicant's [alleged] admission of prior art teach cushioning material is provided on an area of the side surface of the housing 32 containing the bone conduction speaker (page 1 paragraph [0002]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Applicant's [alleged] admission of prior art into the teachings of Lee' 759 as modified by Clark for the purpose of keeping the bone conduction speaker in effective isolation. (Emphasis added)

Consider **claim 3, as applied to claim 2**, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art further teach wherein an opposite side of said bone conduction device also serves as a vibration surface (read as cushion members 60a and 60b are bonded to the upper surface of the diaphragm 56b of the armature 56 and to the lower surface of the base plate 52, respectively. Cushion members 60a and 60b contact direct a human body, especially the head, and control the vibrating characteristics of the vibrator 50.) (Lee `759 — page 9 lines 3-13).

Consider **claim 11, as applied to claim 2**, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions foldable relative to each other (read as portable radiotelephone 100 has an upper housing 102 and a lower housing 104 rotatably connected via a hinge 105 forming a handheld housing for a portable radiotelephone 100) (column 4 lines 5-8); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 1, and column 4 lines 5-8).

However, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art fail to teach wherein the portable telephone is a rotatable type provided with a housing constructed of two housing portions rotatable relative to each other; and a closed position the telephone, wherein said vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a rotatable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of

portable phone, such as a rotatable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Consider **claim 12, as applied to claim 3**, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions foldable relative to each other (read as portable radiotelephone 100 has an upper housing 102 and a lower housing 104 rotatably connected via a hinge 105 forming a handheld housing for a portable radiotelephone 100) (column 4 lines 5-8); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 1, and column 4 lines 5-8).

However, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art fail to teach wherein the portable telephone is a rotatable type provided with a housing constructed of two housing portions rotatable relative to each other; and a closed position the telephone, wherein said vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Clark and further modified by Applicant's

[alleged] admission of prior art can be substituted with a portable telephone that is a rotatable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a rotatable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Consider claim 14, as **applied to** claim 2, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions foldable relative to each other (read as portable radiotelephone 100 has an upper housing 102 and a lower housing 104 rotatably connected via a hinge 105 forming a handheld housing for a portable radiotelephone 100) (column 4 lines 5-8); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 1, and column 4 lines 5-8).

However, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art fail to teach wherein the portable telephone is a slidable type provided with a housing constructed of two housing portions slidable relative to each other; and a closed position of the telephone, wherein said vibration surface of said bone conduction device abuts an inner

surface of one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a slidable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a slidable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Consider **claim 15, as applied to claim 3**, Lee `759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art teach wherein the portable telephone is a foldable type provided with a housing constructed of two housing portions foldable relative to each other (read as portable radiotelephone 100 has an upper housing 102 and a lower housing 104 rotatably connected via a hinge 105 forming a handheld housing for a portable radiotelephone 100) (column 4 lines 5-8); and a folded position of the telephone, wherein a vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions (Figure 1, and column 4 lines 5-8).

However, Lee `759 as modified by Clark and further modified by

Applicant's [alleged] admission of prior art fail to teach wherein the portable telephone is a slidable type provided with a housing constructed of two housing portions slidable relative to each other; and a closed position of the telephone, wherein said vibration surface of said bone conduction device abuts an inner surface of one of said two housing portions.

Nonetheless, the Examiner takes Official Notice of the fact that the portable telephone that is a foldable type provided with two housing portion as taught by Lee ~759 as modified by Clark and further modified by Applicant's [alleged] admission of prior art can be substituted with a portable telephone that is a slidable type with two housing portions, which is well known in the art. It would have been obvious that the substitution of one known type of portable phone, such as a foldable type with two housing portions, for another type of portable phone, such as a slidable type with two housing portions, would have yielded predictable results to one of ordinary skill in the art at the time of the invention and allowing the user to use a bone conduction device in any alternate type of portable telephone for the purpose of the user's preference.

Amendment of Independent Claim 2

Regardless of the above, and solely to expedite prosecution without intending to alter the scope of the claims, Applicants have herein amended independent claim 2 to make explicit that which was implicit. Namely, claim 2 has been amended to recite that the bone conduction device is “...supported in the through-hole portion of the housing only by the cushioning material”

disposed around the bone conduction device” and “thereby reducing the thickness of the portable telephone.” .” Support for these amendments can be found in paragraphs [0007] and [0014] of the specification and are reproduced on page 7 of this paper.

Thus, claim 2 has been amended to more clearly distinguish over the Examiner’s combination in that the relied upon references fail to disclose, suggest or teach a bone conductive device supported in the housing only by the cushioning material disposed around the bone conductive device thereby reducing the thickness of the portable telephone.

Amended independent claim 2 requires **no cushioning material** be disposed in the gap in contact with the bottom surface of the concave portion as clearly required by the following sentence from the second paragraph of the specification relied upon by the Examiner “... The cushioning material 34 is provided in either a bottom surface of the concave portion only (Fig. 10) or an area extending from such bottom surface to a side surface of the concave portion 33.” In view of the above, it should be a be clear that the Examiner’s recitation of the Applicant’s [alleged] admission of FIG. 10 and FIG. 11 are directed toward a concave portion and NOT a through-hole portion. (Emphasis added)

With such amendments, Applicant respectfully submits that independent claim 2 and all claims depending therefrom are allowable and any further rejection of the claims based upon the two applied references in combination with the [alleged] admission is improper.

Rejections under “Official Notice”

Concerning the Examiners continued rejection of a plurality of dependent claims, including claim 5-6, 10 and 13 by taking “official notice.” Applicants believe that the amendments have obviated not only the Examiners prior art rejections but also obviated the Examiner’s reasoning based on specific information that is needed to support the obviousness rejection is obvious to one of ordinary skill in the or the taking of “official notice.”

As stated in a previous response regarding claims 5 and 10-12 directed toward a rotatable type phone and 6, 13-15 directed toward a slidable phone, the Examiner cited “OFFICIAL NOTICE” that the portable telephone could be either a slidable or rotatable type. The Applicant continues to reject that a rotatable or slidable bone conduction speaker type of phone that when close has the second portion in contact with the speaker is well known in the art. The rejection is instead based on the Examiner’s personal knowledge which constitutes IMPROPER hindsight reasoning and appears to be based upon the Applicant’s own specification and the apparent inability of the Examiner to find references that disclose, suggest or teach each and every element of the rejected claims 5-6 and 10-15.

The Applicant continues to respectfully request removal of the improper “OFFICIAL NOTICE” rejections from claims 5-6 and 10-15, which either should be allowed for failing to form a *prima facie* case of obviousness or be replaced with either a proper reference disclosing, suggesting or teaching a combination of ALL elements or the Examiner’s declaration to their personal knowledge of a rotatable or slidable bone conduction phones as claimed by the Applicant for rebuttal, as is required by the MPEP. As the Examiner knows, the MPEP states that it would not be appropriate for the Examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known **are not capable of instant and**

unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. See also *In re Grose*, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979)

The continued rejection of claims 1-15 as amended is improper because the combination of references fails to disclose, suggest or teach each and every element of the amended claims notwithstanding the Examiners improper application of the Applicant's [alleged] admission. Accordingly, Applicant respectfully requests reconsideration and removal of the obviousness rejections and that a notice of allowance be forwarded to Applicant's attorneys.

CONCLUSION

Favorable action constituting allowance of claims 1-15 is respectfully solicited. If the Examiner has any questions regarding any issue that would help to advance the application to allowance, Applicant respectfully requests that the Examiner contact our office prior to forwarding an official action rejecting the amended claims.

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Respectfully submitted,

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